

Docket No. AUS9-2000-0414-US1

**ABSTRACT OF THE DISCLOSURE**

**ENHANCED INTERFACE THERMOELECTRIC COOLERS WITH ALL-METAL  
TIPS**

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A thermoelectric device with improved efficiency is provided. In one embodiment, the thermoelectric device includes a first thermoelement and a second thermoelement electrically coupled to the first thermoelement. An array of first tips are in close physical proximity to, but not necessarily in physical contact with, the first thermoelement at a first set of discrete points. An array of second tips are in close physical proximity to, but not necessarily in physical contact with, the second thermoelement at a second set of discrete points. The first and second conical are constructed entirely from metal, thus reducing parasitic resistances.